In the United States Patent and Trademark Office

In re the Application of:

Yen-Fu Chen	)
Serial Number: 10/692,173	)
Docket Number: AUS920030664US1	)
Filed on: 10/23/2003	)
For: "System and Method for Automatic	)
Information Compatibility Detection and	)
Pasting Intervention"	)

Group: 2173

Examiner: Haoshin Shih

APPEAL BRIEF

(First Reinstatement)

Real Party in Interest per 37 CFR §41.37(c)(1)(i)

The subject patent application is owned by International Business Machines Corporation of Armonk, NY.

Related Appeals and Interferences per 37 CFR §41.37(c)(1)(ii)

The present patent application is related to US Patent Application number 10/455,159, which has issued as US 7,310,781.

Status of Claims per 37 CFR §41.37(c)(1)(iii)

Claims 1 - 15 are finally rejected. The rejections of Claims 1 - 18 are appealed.

Status of Amendments after Final Rejections per 37 CFR §41.37(c)(1)(iv)

Claims 1, 6, 16, 17 and 18 were amended slightly for consistency in terminology on April 2, 2010. An Advisory Action dated April 13, 2010, indicated that the amendment was entered.

Summary of the Claimed Subject Matter per 37 CFR §41.37(c)(1)(v)

Appellant's invention provides an automatic compatibility check when a user tries to "paste" an item from a clipboard buffer to another computer resource, such as a file which the user is editing. In a first unique aspect, the invention follows a destination-first, source-second user interface model of copying and pasting, which is reverse sequence of the normal approach. For example, instead of first copying the source information from the source file, our invention allows the user to initially designate the destination point in the destination file. This is useful because the user is usually already in the GUI for the destination file when he or she realizes some information needs to be inserted from somewhere else. Then, instead of having the user select the destination second, our invention allows the user to select the source information second. So, the process is opposite of the normal cut-and-paste approach – instead, it is almost a paste-and-cut approach. We find that this flow is much more natural and efficient in most circumstances.

A second unique aspect of our invention is that it automatically concatenates multiple selected source items into the clipboard or paste buffer without overwriting or replacing the previous contents of the clipboard. For example, in a traditional system at the time of filing the patent application, if a user selected a first paragraph of text from a first source, and then selected a second paragraph, the contents of the clipboard would be replaced so that the first paragraph is lost and the second paragraph is all that is in the clipboard. Subsequent pasting would only paste the second paragraph. According to our invention, however, the user can "gather up" source items – text, images, etc. – from a variety of sources into the clipboard, and paste all of them at one time. So, the underlining mechanism to accomplish this provided by the invention is to append or concatenate newly selected source items to the items already in the clipboard (without replacing them).

Independent Claim 18 is directed towards system embodiments of the present invention, and is shown in the following chart with its supporting disclosure passages.

Claim 18 - Support from Disclosure

Claim Elements	Support from Disclosure
18. A system for automatically transferring content from one computer resource to another computer resource, the system having one or more circuits, one or more programs executed by a processor, or a combination of circuits and processor-executed programs comprising:	
a single transfer buffer in a computer readable storage memory; and	Clipboard in Fig. 7
an element copier: allowing a user to designate a destination point or area in a first computer resource;	See Fig. 5 #51; Fig. 7 #104 [0099] . . . the user may navigate (51) to a first insertion point and optionally highlight an insertion area to designate a first "paste" destination while in the current (destination) UI. . . .
allowing a user to select in a second user interface to a second computer resource multiple information elements in a second computer resource;	See Fig. 5 #56; Fig. 7 #103 [0101] Next, the user switches . . . highlights or selects (56) source content.
automatically concatenating the multiple selected information elements into the single transfer buffer; and	[0056] The information contained in the transfer buffer may be concatenated as source selection operations are made instead of replacing the contents of the buffer, such that a user may "collect up" information from multiple source points before a single insertion or paste is made. . . . [0104] If the concatenation option is selected, upon selection of a content block or area, it is appended to the existing of the transfer buffer, and the user is given the option to perform the automatic pasting into the destination point(s) and area(s), without need to switch back to the destination UI.
automatically transferring the information elements from the single transfer buffer, to the destination point or area of one or more information elements.	[0102] Compatibility handling is performed (501), described in more detail in the following paragraphs, and the compatible information is then automatically copied into the transfer buffer, and subsequently pasted (58) into the designated destination point(s) and area(s), without need to switch back to the destination UI.

Similarly, independent Claim 16 is directed towards a computer-implemented method comprising:

providing a copier configured to allow a user to designate a destination point or area in a first computer resource, and to select in a second user interface to a second computer resource multiple information elements in the second computer resource *{Fig. 5 #51; Fig. 7 #104, ¶¶0099 - 0101}*;

responsive to the user selections, automatically concatenating the multiple selected information elements into a single transfer buffer *{ ¶¶0056, 0104}*; and

automatically transferring the concatenated information elements from the transfer buffer, to the destination point or area of one or more information elements *{¶0102}*.

And, independent Claim 17 is directed to computer-readable storage memory embodiments according to the invention, comprising:

a computer readable storage memory *{Fig. 3, #33 - 36, 39, and 312}* suitable for encoding computer programs *{Fig. 3 #3101}*; and

one or more computer programs encoded by the memory and configured to transfer content from one computer resource to another computer resource by:

providing a copier configured to allow a user to designate a destination point or area in a first computer resource, and to select in a second user interface to a second computer resource multiple information elements in the second computer resource *{Fig. 5 #51; Fig. 7 #104, ¶¶0099 - 0101}*;

responsive to the user selections, automatically concatenating the multiple selected information elements into a single transfer buffer *{ ¶¶0056, 0104}*; and

automatically transferring the concatenated information elements from the transfer buffer to the destination point or area of one or more information elements *{¶0102}*.

Grounds for Rejection For Which Review is Sought per 37 CFR §41.37(c)(1)(vi)

Review by the Board of the rejections of Claims 1 - 18 under 35 U.S.C. §112, second

paragraph, and the rejections of Claims 16 - 18 under 35 U.S.C. §103(a) over Apperley

(Apperley, "Breaking the copy/paste cycle: the stretchable selection tool") in

view of Blish et al. (Blish, US 6,177,939 Bl).

Review is also sought of the rejections of Claims 1, 6 and 11 under 35 U.S.C. §103(a) as

being unpatentable over Apperley in view of Blish and in further view of Stern *et al.* (Stern, US

6,807,668 B2), and of Claims 2 - 5, 7- 10 and 13 - 15 over Apperly in view of Blish and Stern in

further view of Tomm et al. (Tomm US 6,560,608 B 1) and Tsuji *et al.* (Tsuji. US 5,586,025).

Arguments per 37 CFR §41.37(c)(1)(vii)

Whereas the entire examination history is often used to interpret claim scope of issued patents, the full prosecution history is also relevant to the current Appeal.   It is of particular relevance to note a previous allowance in this application, the reasons for allowance provided by the Examiner, and subsequent amendments by the Appellant.

On the third Office Action on the merits, the rejections of the claims were made final, from which Appellant filed a first appeal.   Following the filing of the first Appeal Brief, the Examiner initiated a telephone interview in which allowance was offered for some of the claims if the destination-first-source-second reverse-normal operation were added to the claims. Appellant accepted the offer, and subsequently, the Examiner re-opened examination and allowed the claims with an Examiner's amendment.

In the Notice of Allowance, however, the reasons for allowance stated that the art did not show the destination-first-source-second reverse-normal operation nor did it show our disclosed "concatenation" operation.

Based on this statement of reasons for allowance and upon Appellant's preference to incorporate the concatenation operation as the distinctive aspect of the claims in place of the destination-first-source-second reverse-normal operation, Appellant filed a Request for Continued Examination in order to amend the claims accordingly.

After filing of the RCE and amendment, two office actions have been made on the merits, the fourth and fifth action. In the fourth Office Action, rejections were made under 35 U.S.C. §112 for not having described concatenating the selected items in the clipboard.   This was puzzling to the Appellant because this one of the two claim aspects that had been distinguished by the Examiner in the reasons for allowability. And, new rejections under 35 U.S.C. §102 of the claims over Apperley, and under 35 U.S.C. §103 over Apperley in view of Stern, Tomm, and Tsuji, were made.

Appellant responded to the fourth Office Action with a clarifying amendment regarding the concatenating of multiple copied items into a single transfer buffer, and made arguments that none of the references taught this type of concatenation (essentially agreeing with the Examiner's statement of reasons for allowance).

However, in the fifth Office Action, Appellant received final rejections under 35 U.S.C. §112, second paragraph, for minor antecedent basis problems, and the independent claims were rejected under 35 U.S.C. §103 over the previously cited Apperley in view of a newly-cited reference Blish.   It was noted that newly-cited Blish teaches concatenation of multiple selected items into a single clipboard.

Rejections of Claims 1 - 18 under 35 U.S.C. §112, Second Paragraph

The Examiner has held:

> *Examiner:* Claim 16 recites the limitations "the concatenated information items" in line 8, and "the multiple selected information elements" in line 9. There is insufficient antecedent basis for limitations in the claim. Claims 17 and 18 are rejected similarly as set forth in claim 16. Claims 1- 15 are rejected similarly because of their dependency to claims 16- 18.

Appellant believes that these rejections stemmed from inconsistencies in the claim terminology, wherein "information *items*" were meant to refer to the same thing as "information *elements*".   Appellant believes that the after-final amendment resolves these differences in terminology, and with its entry, no grounds for rejection under 35 U.S.C. §112, second paragraph. remain.

Appellant respectfully request withdrawal of these rejections in the Examiner's Answer, and if maintained, Appellant respectfully requests review and reversal by the Board of Patent Appeals.

Rejections of Claims 16 - 18 under 35 U.S.C. §103(a)

With respect to the rejections of Claims **16 - 18 under 35 U.S.C.** §103(a) over Apperley in view of newly-cited Blish, the Examiner has held on several occasions that Apperley does not teach concatenation of multiple copied items in a clipboard or paste buffer – a first time in the reasons for allowance, and at least a second time in the fifth Office Action (page 4):

> *Examiner:* Apperley does not specifically disclose concatenating the multiple selected information elements and transferring the concatenated information items to the destination point.

Appellant agrees that Apperley fails to teach such concatenation in a copy/paste operation. The Examiner has reasoned that:

> *Examiner:* In the same field of endeavor, Blish discloses concatenating the multiple selected information elements and transferring the concatenated information items to the destination point (col.1, lines 55-66, col.3, lines 41-46; information elements are selected from multiple locations are collected/copied/appended/concatenated to a clipboard memory and pasted to a destination location).

Please note that what follows the citation of the column and line numbers is not a quote from the Blish disclosure, but instead is the Examiner's interpretation, which we believe is erroneous for the following reasons.

First, please consider the actual text cited from Blish:

> *Blish Col. 1 lines 55 - 66:*
> The present invention is directed to overcoming one or more of the problems set forth above. Briefly summarized, according to one aspect of the present invention, a method for saving sections of a document to random access memory without overwriting previously saved sections, comprising the steps of selecting a first section of the document at a first location in the document. The first section is copied to a clipboard. A second section of the document at a second location in the document is selected and copied to the clipboard wherein the second section does not overwrite said first section on the clipboard. These saved sections are subsequently pasted to other locations in the document or to clip other documents.

In this first passage, Blish clearly states that the copying of the second section does not replace or overwrite the previously copied first section. Appellant agrees with this teaching to this point, but at this point, it is not clear *how* Blish's system achieves this. Continuing to the second passage relied upon by the Examiner (Appellant's emphasis added):

> *Blish, Col. 3 lines 41 - 46:*
>
> 2. Create the Clipboard Table of Contents shared memory funcblock (created on the first cut or copy, the name of the shared memory block is CLIPTOC) or append an entry for the cut or copy operation. The **table of contents shared memory block contains three elements for each entry** as follows:

Please note at this point that these passages have not mentioned appending nor mentioned concatenating the two copied sections together in a single clipboard, but there is a reference to a "table of contents" being built.

As it turns out, this is *how* Blish manages not to overwrite a first copied element with a second copied element by creating a table of contents as a list of items marked for copying, each "entry" in the list having "three elements" provided in the immediately following text: (1) a name of up to 20 bytes, (2) a 4-byte format ID, and (3) clipboard format. When the user eventually "pastes" all of the selected items into a destination, Blish's system uses this list (e.g. their table of contents) to repeatedly call system functions to verify each item's format and to paste each item individually (column 4 of Blish). From this further reading of the Blish, it appears that Blish does not append or concatenate the selected items to each other in a single clipboard, but merely appends a descriptive entry for each selected item onto their existing "table of contents".

Appellant's interpretation is further supported by Blish's claims, which clearly paste one selected item at a time, explicitly stating "one and only one" in multiple places in the claims.

Finally, a careful search of Blish's disclosure finds no other instances of the terms "append" or "concatenate", other than with respect to adding entries to their table of contents, where their "entries" are clearly not the selected items themselves but instead are descriptive of the selected items (e.g. name, format, etc.).

For these reasons, Appellant respectfully submits that the final rejections of Claims 16, 17, and 18 under 35 U.S.C. §103(a) over Apperley in view of Blish is erroneous for several reasons:

(a)   Appellant's disclosure has been improperly read into the Blish disclosure in conflict with the technical details of how Blish's copying process is described;

(b)   Blish actually fails to teach concatenating several selected items together in a single clipboard but instead teaches creating a list of items for copying and subsequently pasting one and only one item at a time until all items on their list have been copied; and

(c)   Blish does not claim concatenation of several selected items together in a single clipboard, and thus, the presumption of enablement is not afforded to Blish's disclosure with respect to this process for copying multiple selected items.

For these several reasons, Appellant respectfully requests reversal of the rejections of Claims 16, 17 and 18.

Rejections of Claims 1 - 15 over Apperley, Blish, Stern, Tomm, and Tsuji

Each of these claims depends from either Claim 16, 17 or 18. Each of the rejections of these claims depends on the teachings of Blish regarding concatenation, whereas the record of examination shows at several points that Apperley, Stern, Tomm and Tsuji all fail to teach such concatenation of multiple items into a single clipboard.

For these reasons, Appellant respectfully requests reversal of the rejections of Claims 1 - 15 because Apperley in view of Blish in further view of Stern in still further view of Tomm and in still further view Tsuji fails to teach concatenation of selected items into a single clipboard memory.

Summary

        For the foregoing reasons, Appellant respectfully submits that several errors in
examination have occurred, and that all pending claims are patentenbly distinct over the cited art.
Reversal of all rejections is respectfully requested.

                                        Respectfully,
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Claims Appendix

per 37 CFR §41.37(c)(1)(viii)

Clean Form of Amended Claims

1. The computer-implemented method as set forth in Claim 16:

  wherein the providing of a copier comprises providing a destination-first, source-second element copier configured to allow a user in a first user interface to a first computer resource to designate a destination point or area in the first computer resource, and to subsequently select in a second user interface to a second computer resource two or more information elements in the second computer resource;

  wherein the transfer buffer comprises a clipboard in memory;

  wherein the concatenating further comprises, subsequent to the user selections, automatically copying the selected information elements into the clipboard in memory;

  wherein the automatic transferring further comprises, upon attempt to automatically transfer the information elements from the clipboard in memory, intercepting the transfer to the destination point or area of one or more information elements;

  and the method further comprising:

  performing a compatibility check for each intercepted information element with the destination computer resource by consulting one or more user-configurable compatibility rules to classify elements as incompatible or compatible;

  for each incompatible element, performing a compatibility handling action as defined by one or more conversion rules; and

  for each compatible element, allowing transfer of the unmodified compatible element to the destination.

2. The method as set forth in Claim 1 further comprising:

    invoking a rule management user interface responsive to finding no existing

        compatibility rule for an element to be transferred; and

    allowing, via the rule management user interface, a user action selected from a

        group comprising creating a new compatibility rule, deleting a compatibility rule,

        and modifying a compatibility rule.

3. The method as set forth in Claim 1 further comprising:

    invoking a rule management user interface responsive to finding no existing conversion

        rule for an element to be transferred; and

    allowing, via the rule management user interface, a user action selected from a group

        comprising creating a new conversion rule, deleting a conversion rule, and

        modifying a conversion rule.

4. The method as set forth in Claim 3 wherein the user action of creating and modifying a conversion rule comprises creating and modifying a conversion rule which specifies performing an action selected from a group comprising converting a text element from one format to another format, converting a graphic image element from one format to another format, converting a video clip element from one format to another format, converting an audio clip element from one format to another format, converting animated image element from one format to another format, isolating an element, isolating an element and transferring an annotation to the destination, isolating an element and transferring a hyperlinked annotation to the destination.

5. The method as set forth in Claim 1 wherein the performing a compatibility handling action comprises performing an action selected from the a group comprising converting a text element from one format to another format, converting a graphic image element from one format to another format, converting a video clip element from one format to another format, converting an audio clip element from one format to another format, converting animated image element from one format to another format, isolating an element, isolating an element and transferring an annotation to the destination, isolating an element and transferring a hyperlinked annotation to

the destination.

6. The computer-readable memory as set forth in Claim 17:

    wherein the computer program providing of a copier comprises computer program
        providing a destination-first, source-second element copier configured to allow a
        user in a first user interface to a first computer resource to designate a destination
        point or area in the first computer resource, and to subsequently select in a
        second user interface to a second computer resource two or more information
        elements in the second computer resource;

    wherein the transfer buffer comprises a clipboard in memory;

    wherein the computer program concatenating further comprises, subsequent to the user
        selections, automatically copying the selected information elements into the
        clipboard in memory;

    wherein the computer program automatically transferring further comprises, upon attempt
        to automatically transfer the information elements from the clipboard in memory,
        intercepting the transfer to the destination point or area of one or more
        information elements;

    and the computer program further comprising:

        performing a compatibility check for each intercepted information element with
            the destination computer resource by consulting one or more
            user-configurable compatibility rules to classify elements as incompatible
            or compatible;

        for each incompatible element, performing a compatibility handling action as
            defined by one or more conversion rules; and

        for each compatible element, allowing transfer of the unmodified compatible
            element to the destination.

7. The computer readable storage memory as set forth in Claim 6 further comprising computer program configured to:

    invoke a rule management user interface responsive to finding no existing compatibility rule for an element to be transferred; and

    allow, via the rule management user interface, a user action selected from a group comprising creating a new compatibility rule, deleting a compatibility rule, and modifying a compatibility rule.

8. The computer readable storage memory as set forth in Claim 6 further comprising computer program configured to:

    invoke a rule management user interface responsive to finding no existing conversion rule for an element to be transferred; and

    allow, via the rule management user interface, a user action selected from a group comprising creating a new conversion rule, deleting a conversion rule, and modifying a conversion rule.

9. The computer readable storage memory as set forth in Claim 8 wherein creating and modifying a conversion rule comprises creating and modifying a conversion rule which specifies performing an action selected from a group comprising converting a text element from one format to another format, converting a graphic image element from one format to another format, converting a video clip element from one format to another format, converting an audio clip element from one format to another format, converting animated image element from one format to another format, isolating an element, isolating an element and transferring an annotation to the destination, isolating an element and transferring a hyperlinked annotation to the destination.

10. The computer readable storage memory as set forth in Claim 6 wherein the performing a compatibility handling action comprises performing an action selected from a group comprising converting a text element from one format to another format, converting a graphic image element from one format to another format, converting a video clip element from one format to another format, converting an audio clip element from one format to another format, converting animated image element from one format to another format, isolating an element, isolating an element and transferring an annotation to the destination, isolating an element and transferring a hyperlinked annotation to the destination.

11. The system as set forth in Claim 18:

   in which the transfer buffer comprises a clipboard in memory;

   in which the copier comprises a destination-first, source-second element copier configured to allow a user in a first user interface to a first computer resource to designate a destination point or area in the first computer resource, to subsequently select in a second user interface to a second computer resource two or more information elements in the second computer resource, and to subsequently automatically copy the selected information elements into the clipboard in memory thereby concatenating the information elements into the clipboard;

   and further comprising:

   a transfer interceptor configured to, upon attempt to copy the information elements from the clipboard, intercept one or more information elements;

   a compatibility checker configured to verify the compatibility of each intercepted information element with the destination by consulting one or more user-configurable compatibility rules to classify elements as incompatible or compatible; and

   a compatibility action handler configured to perform an action as defined by one or more conversion rules for each intercepted information element, and further configured to allowing transfer of the compatible elements to the destination without modification.

12. The system as set forth in Claim 11 further comprising:

      a rule management user interface, invoked in response to finding no existing
            compatibility rule for an element to be transferred; and

      one or more user options provided via the rule management user interface, for selecting a
            compatibility rule management action from a group comprising creating a new
            compatibility rule, deleting a compatibility rule, and modifying a compatibility
            rule.

13. The system as set forth in Claim 11 further comprising:

      a rule management user interface, invoked in response to finding no existing conversion
            rule for an element to be transferred; and

      one or more user options provided via the rule management user interface, for selecting a
            user action from a group comprising creating a new conversion rule, deleting a
            conversion rule, and modifying a conversion rule.

14. The system as set forth in Claim 13 wherein the user action group comprises at least one
action selected from a group comprising creating and modifying a conversion rule which
specifies performing an action selected from the group of converting a text element from one
format to another format, converting a graphic image element from one format to another format,
converting a video clip element from one format to another format, converting an audio clip
element from one format to another format, converting animated image element from one format
to another format, isolating an element, isolating an element and transferring an annotation to the
destination, isolating an element and transferring a hyperlinked annotation to the destination.

15. The system as set forth in Claim 11 wherein the compatibility action handler is further configured to perform an action selected from a group comprising converting a text element from one format to another format, converting a graphic image element from one format to another format, converting a video clip element from one format to another format, converting an audio clip element from one format to another format, converting animated image element from one format to another format, isolating an element, isolating an element and transferring an annotation to the destination, isolating an element and transferring a hyperlinked annotation to the destination.

16. A computer-implemented method comprising:

    providing a copier configured to allow a user to designate a destination point or area in a first computer resource, and to select in a second user interface to a second computer resource multiple information elements in the second computer resource;

    responsive to the user selections, automatically concatenating the multiple selected information elements into a single transfer buffer; and

    automatically transferring the concatenated information elements from the transfer buffer, to the destination point or area of one or more information elements.

17. A computer-readable storage memory comprising:

    a computer readable storage memory suitable for encoding computer programs; and

    one or more computer programs encoded by the memory and configured to transfer

        content from one computer resource to another computer resource by:

        providing a copier configured to allow a user to designate a destination point or

            area in a first computer resource, and to select in a second user interface to

            a second computer resource multiple information elements in the second

            computer resource;

        responsive to the user selections, automatically concatenating the multiple

            selected information elements into a single transfer buffer; and

        automatically transferring the concatenated information elements from the

            transfer buffer to the destination point or area of one or more information

            elements.

18. A system for automatically transferring content from one computer resource to another
computer resource, the system having one or more circuits, one or more programs executed by a
processor, or a combination of circuits and processor-executed programs comprising:

    a single transfer buffer in a computer readable storage memory; and

    an element copier:

        allowing a user to designate a destination point or area in a first computer

            resource;

        allowing a user to select in a second user interface to a second computer resource

            multiple information elements in a second computer resource;

        automatically concatenating the multiple selected information elements into the

            single transfer buffer; and

        automatically transferring the information elements from the single transfer

            buffer, to the destination point or area of one or more information

            elements.

Evidence Appendix
per 37 CFR §41.37(c)(1)(ix)

No evidence has been submitted by applicant or examiner pursuant to 37 CFR §§1.130, 1.131, or 1.132.

Related Proceedings Appendix
per 37 CFR §41.37(c)(1)(x)

No decisions have been rendered by a court or the Board in the related proceedings as identified under 37 CFR §41.37(c)(1)(ii).